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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,858	10/27/2000	Alfred R. DeAngelis	5048	6761
7590	09/22/2004			EXAMINER
Milliken & Company P. O. Box 1927 Spartanburg, SC 29304				BEFUMO, JENNA LEIGH
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/697,858	DEANGELIS ET AL.
	<b>Examiner</b> Jenna-Leigh Befumo	<b>Art Unit</b> 1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 23 December 2002.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-8 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 27 October 2000 is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/01, 5/02, 12/02.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other:

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. Reference 1,248,378 listed in the IDS filed on May 29, 2001 was not considered since the patent number does not correspond to the patent date and inventor name listed on the IDS.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “11” has been used to designate both the core of the sheath/core yarn in Figure 1 and the heater yarn in the woven or knitted fabrics in Figures 2A, 2B, 3A, and 3B.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “13” has been used to designate both the insulating outer layer in the sheath/core yarn in Figure 1 and the non-conductive yarns in the woven or knitted fabrics in Figures 2A, 2B, 3A, and 3B. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.

Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1 – 8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9 – 31 of copending Application No. 10/424,120. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both drawn to a textile fabric comprising a positive temperature coefficient (PTC) yarn.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claims 1 – 8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 12 of U.S. Patent No. 6,720,539. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both drawn to a textile fabric comprising a PTC yarn.

***Definition***

7. The term positive temperature coefficient is examined based on the definition provided in the disclosure on page 2, stating the a PTC yarn is a conductive yarn that demonstrates an increased electrical resistance with an increased temperature, and a decreased electrical resistance with decreased temperatures.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 – 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gould (4,061,827).

Gould discloses an electrically conductive fiber formed from a thermoplastic organic polymer having a zero or positive temperature coefficient of resistance, which corresponds to the applicant's PTC yarn (abstract). Carbon particles are dispersed in the outer region of the fiber to create the conductive fiber (abstract). The fiber can be used in yarns, knitted fabrics, woven fabrics, or non-woven fabrics (column 3, lines 12 – 15). Further, Gould discloses that non-conductive and electrically conductive fibers can be combined together to form fabrics in Example 5. The fabric produced in Example 5 comprises a non-conductive glass fiber, copper wires, and an electrically conductive yarn (column 4, lines 48 – 60). The copper wires correspond to the applicant's conductive lead connecting to the PTC yarn. Therefore, claims 1 – 3 and 6 are anticipated.

#### *Claim Rejections - 35 USC § 103*

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4, 5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould.

The features of Gould have been set forth above. Gould fails to disclose a knit fabric comprising the PTC yarn as the loop yarn or adding the PTC yarn to a knit structure as a laid in yarn. However, Gould discloses that the PTC yarn can be used in knit structures and that the fabrics can be made from more than one type of yarn. Therefore, it would have been obvious to one of ordinary skill in the art to use the PTC yarn in different knit structures by either using PTC yarn to form the loops of the knitted fabric or by inserting the yarns into the knitted fabric in the weft or warp direction so that the yarns can run across the width or length of the fabric which would require less PTC yarn be used in the overall fabric. Further, it would be within the general skill of a worker in the art to choose a knit structure which can include multiple types of yarns knitted together to form a heating blanket as the finished product. Therefore, claims 4, 5, 7, and 8 are rejected.

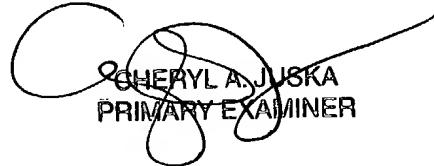
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jenna-Leigh Befumo  
September 14, 2004



CHERYL A. JUSKA  
PRIMARY EXAMINER